

U.S. Patent Application Serial No. **09/787,614**  
Amendment dated April 14, 2004  
Reply to OA of **November 18, 2003**

**REMARKS**

Claims 1-19 are pending in this application. Claim 1 has been amended and new claim 19 has been added herein.

Support for new claim 19 may be found in general in original claim 1 of the application. Support for the particular limitation that “at least one of W<sup>1</sup> to W<sup>6</sup> is F, Cl, CF<sub>3</sub>, OCF<sub>3</sub>, or CN” is supported by various Examples in the disclosure in which F, Cl, CF<sub>3</sub>, OCF<sub>3</sub>, and CN are shown as substituents on the naphthalene group, and on page 208, line 23.

**Regarding the Office action summary.**

The Examiner indicates that claims 1-17 are pending in the application, and claims 1-4 and 14-17 are rejected in the Office action. However, claims 1-18 were filed in the application, and claims 1-18 have been listed as pending in the Office actions of December 4, 2002, April 11, 2003, and July 30, 2003. The response of September 2, 2003, also indicated that claim 18 was pending, and no claims have been canceled to date in the application. Applicants respectfully request that claim 18 be indicated as pending and be examined in the next Office action.

**Claims 5-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a non-elected species. (Office action paragraph no. 1)**

In the Response to Election of Species Requirement, dated September 2, 2003, Applicants indicated that claims 1-4 and 13-18 read on the elected species. However, the Examiner has withdrawn claim 13 in addition to claims 5-12.

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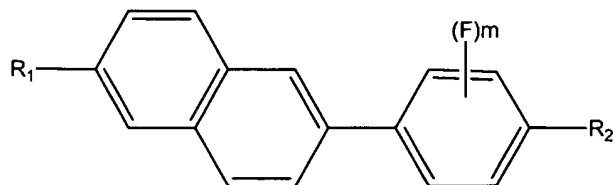
Applicants note that claim 13 depends from claim 1 and recites “wherein said liquid crystal composition contains one, or two or more kinds of core-structure compounds which have four six-membered rings and a liquid crystal phase- isotropic liquid phase transition temperature of 100°C or higher.” The “core-structure compounds” are additional components in the nematic liquid crystal composition. (See pages 154, line 27; page 177, line 12; and page 212, line 25). Therefore, claim 13 reads on the elected species in the same manner as base claim 1.

Applicants therefore respectfully request that the withdrawal of claim 13 be reversed and that claim 13 be considered as reading on the elected species and be rejoined and examined.

**Claims 1-4 and 16-17 are rejected under 35 U.S.C. §102(b) as being anticipated by Gray et al. (U.S. Patent No. 5,252,253).** (Office action paragraph no. 3)

The rejection is overcome by the amendment to claim 1. Claim 1 has been amended in line 2 to delete the recitation allowing one compound represented by one formula of general formulas (I-1) to (I-5). As amended, two or more kinds of compounds represented by two or three or more of the general formulas must be present in the claimed composition of claim 1.

Gray discloses general compounds of formula (I), which is:



. The Examiner cites Figure 1 of Gray, which also

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illustrates formula (I), as anticipating present formula (I-1) of claim 1. The Examiner refers in particular to compounds 1.9 to 1.11 of the reference.

As amended, claim 1 now requires two or more compounds represented by two or more of the general formulas (I-1) to (I-5). That is, for example, if a compound of formula (I-1) is present, an additional compound of formula (I-2) to (I-5) must also be present. Applicants submit that Gray et al. does not disclose or suggest such a composition.

With regard to Examples 1.9 to 1.11 in Gray et al., Applicants also note that Example 1.10 cannot anticipate formula (I-1) in claim 1, because there is a fluorine on the phenylene ring.

Applicants therefore submit that the claims, as amended, are not anticipated by Gray et al.

**Claims 1-4 and 16-17 are rejected under 35 U.S.C. §102(b) as being anticipated by Takehara et al. (U.S. Patent No. 6,468,607). (Office action point no. 4)**

The Examiner cites Takehara et al. '607 as being a reference under 35 U.S.C. 102(b). However, Applicants note that Takehara et al. '607 was patented on October 22, 2002, and is **not** a reference under 102(b).

The present application is a national stage of an international application filed on September 10, 1999, with foreign priority claimed to September 21, 1998. On the other hand, Takehara et al. was filed on April 22, 1999. Therefore, Takehara et al. is only a reference under 35 U.S.C. 102(e) as of its April 22, 1999, filing date.

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The Examiner cites in particular formula (I) in column 1 to column 9. This formula is similar to general formula (I-1) in claim 1, and there is overlap between the formula in the reference and formula (I-1) in claim 1.

Applicants submit that the amendment to claim 1, requiring at least two kinds of compounds of at least two of the general formulas, distinguishes claims 1-4 and 16-17 from Takehara et al. '607.

Applicants also believe that it is unclear that the formulas in claims 1-4 and 16-17 are anticipated by Takehara et al., as opposed to being obvious over the reference as a consequence of the overlap in the formulas. Anticipation of the individual formulas would require a narrower disclosure in the reference. In any event, Applicants also overcome the rejection by asserting the right to foreign priority of Japanese applications no. 10-266993, filed September 21, 1998; 11-150024, filed May 28, 1999; and 11-187087, filed June 30, 1999. The claim for foreign priority has already been made and the certified copies of the priority documents have been forwarded by the International Bureau. Applicants here provide verified translations of the three priority documents in accordance with 37 CFR 1.55.

With regard to support for the claims, Applicants note that the general recitation of formulas (I-1) through (I-5) in claim 1 may be found in claim 1 of JP 11-187087.

Applicants also note that Takehara et al. '607 and the present application are assigned to Dainippon Ink and Chemicals. Applicants therefore also assert in accordance with 35 U.S.C. 103(c), for any claims not anticipated by Takehara et al. '607 but that might be considered to be obvious over the reference, that the subject matter of Takehara et al. '067 and the claimed invention were, at the time the invention was made, both under obligation of assignment to the Applicant,

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Dainippon Ink and Chemicals, Inc.

**Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray et al. (U.S. Patent No. 5,252,253).** (Office action paragraph no. 6)

Claim 14 recites limitations on the dielectric constant anisotropy, birefringent index, nematic phase-isotropic liquid phase transfer temperature, and crystal phase, smectic phase or glass phase-nematic phase transfer temperatures. The Examiner argues that it would have been obvious to one of skill in the art to optimize the reference compound to arrive at the claimed properties.

The rejection of claims 14 and 15 is overcome by the amendment to claim 1. As discussed above, the amendment to claim 1 distinguishes claim 1 from Gray. Claims 14 and 15 depend from claim 1.

Moreover, Applicants note that Gray '253 does not mention the terms "anisotropy" and "phase transfer" and Applicants submit that there is no suggestion in Gray '253 to optimize these parameters as recited in claim 14.

**Regarding new claim 19.**

The recitation of new claim 19 is related to that of original claim 1, although in claim 19 component A is composed of **one** kind of compound represented by a general formula selected from the general formulas (I-1) to (I-5). In addition, claim 19 has the limitation that "at least one of W<sup>1</sup> to W<sup>6</sup> is F, Cl, CF<sub>3</sub>, OCF<sub>3</sub>, or CN". Applicants note that Gray does not disclose a F on a naphthalene group. Applicants submit that Gray does not disclose a compound consistent with this limitation in new claim 19.

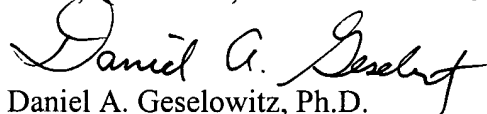
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If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP



Daniel A. Geselowitz, Ph.D.

Agent for Applicants

Reg. No. 42,573

DAG/plb  
Atty. Docket No. **010347**  
Suite 1000  
1725 K Street, N.W.  
Washington, D.C. 20006  
(202) 659-2930



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PATENT TRADEMARK OFFICE

Enclosures: Translation of JP Application 10-266993  
Translation of JP Application 11-150024  
Translation of JP Application 11-187087

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